Table 12.2 – Number of Home Electricity Needs Met Calculation

Conversion Formula: *Step 1* *Capacity (A) x Capacity Factor (B) x Annual Hours (C) = Annual Electricity Generation (D)*
Step 2 *Annual Electricity Generation (D) / Average Consumption (E) = Number of Households (F)*

Technology	**Wind**	**Geothermal**	**Biomass**	**Hydropower**	**PV**	**Solar Thermal**
(A) Capacity (kW)	8,181,033	2,189,957	6,417,795	79,103,834	168,977	440,800
(B) Capacity Factor (%)	36.0%	90.0%	80.0%	44.2%	22.5%	24.4%
(C) Annual Hours	8,760	8,760	8,760	8,760	8,760	8,760
(D) Annual Electricity Generation (kWh)	25,799,706,093	17,265,620,227	44,975,908,630	306,239,675,812	333,053,696	705,355,200
(E) Average Annual Household Electricity Consumption (kWh)	11,586	11,586	11,586	11,586	11,586	11,586
(F) Number of Households	2,226,809	1,490,220	3,881,935	26,431,984	28,746	62,415

Sources: Capacity: EIA, *Annual Energy Outlook 2005,* DOE/EIA-0383 (2005) (Washington, D.C., February 2005), Table A16, 2005.

Capacity factors: Hydropower calculated from EIA, *Annual Energy Outlook 2005*, DOE/EIA-0383 (2005) (Washington, D.C., February 2005), Table A16.
All others based on DOE, *Renewable Energy Technology Characterizations*, EPRI TR-109496, 1997, and program data.

Household electricity consumption: EIA, *Annual Energy Outlook 2005*, DOE/EIA-0383 (2005) (Washington, D.C., February), Tables A4 and A8, 2005.

Notes:

Capacity values exclude combined-heat-and-power (CHP) data but include end-use sector (industrial and commercial) non-CHP data.